We claim:

1. A process for the synthesis of ion imprinted polymer particles for solid phase extraction preconcentration of erbium ions which comprises:
   (a) forming a mixed ligand ternary complex of erbium imprint ion with 5,7-dichloroquinoline-8-ol and 4-vinyl pyridine;
   (b) dissolving the ternary complex in a suitable porogen to form a pre-polymerizing mixture;
   (c) combining the mixture of step (b) with a functional monomer and a crosslinking monomer and polymerizing by γ-irradiation or by photochemical and thermal polymerization to obtain a polymer material;
   (d) grinding and sieving of polymer material obtained in (c) to prepare erbium ion imprinted polymer particles;
   (e) selective leaching of imprint ion embedded materials in the polymer particles of (d) using a mineral acid.
2. A process as claimed in claim 1 wherein the γ-irradiation is carried out as a function of methyl methacrylate (functional monomer) concentration.
3. A process as claimed in claim 1 wherein the photochemical polymerization is carried out as a function of time of UV irradiation.
4. A process as claimed in claim 1 wherein the thermal polymerization is carried out as a function of ethyleneglycoldimethacrylate (crosslinking monomer) concentration.
5. A process as claimed in claim 1 wherein the functional monomer is selected from the group consisting of 4-vinylpyridine and methylmethacrylate.
6. A process as claimed in claim 1 wherein the crosslinking monomer comprises ethylene glycol dimethacrylate.
7. A process as claimed in claim 1 wherein the reaction is carried out using 2,2'-azobisisobutyronitrile is used as initiator in step (c).
8. A process as claimed in claim 1 wherein the grinding and sieving in step (d) is carried out after drying of the erbium ion imprinted polymer materials.
9. A process as claimed in claim 1 wherein the mineral acid used for leaching comprises HCl.